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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,326	02/20/2004	Michael J. Czaplicki	1001-133	6882
25215	7590	09/12/2006	EXAMINER	
DOBRUSIN & THENNISCH PC 29 W LAWRENCE ST SUITE 210 PONTIAC, MI 48326			SELLERS, ROBERT E	
			ART UNIT	PAPER NUMBER
			1712	

DATE MAILED: 09/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/783,326

Applicant(s)

CZAPLICKI ET AL.

Examiner

Robert Sellers

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-14, 16-19 and 24-34 is/are pending in the application.
- 4a) Of the above claim(s) 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-13, 16-19 and 24-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 25 August 2006.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

Claim 14 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species of epoxy component, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 20, 2006 wherein a solid bisphenol A epoxy resin was elected. Claim 14 was inadvertently included in the non-Final rejection mailed May 25, 2006.

1. The term "bisphenol" is misspelled in claim 16, line 3.
2. The mixing temperature range of "between about 50°C **or lower** and 250°C **or higher**" on page 6, lines 11-12 is unclear since the term "between" denotes values within minimum and maximum limits [emphasis added]. However, there are no minimum and maximum limits since the terms "or lower" and "or higher" expand the boundaries infinitely. The same problem occurs with respect to the viscosity range of "between about 100 Pas **or less** and 1500 Pas **or greater**" set forth on page 8, lines 29-30 [emphasis added].
3. The acronym "EPHR" for the carboxyl content of the elastomeric component in claim 33, line 10 should be more completely defined as "equivalents per one hundred parts by weight of rubber (EPHR)" to more concisely indicate the basis for the carboxyl equivalent as set forth on page 4, line 13 of the specification. This acronym is not as familiar or art-recognized as the acronyms "amu" and "EEW" denoted in previous portions of claim 33 and requires clarification.

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4. The 35 U.S.C. 112, first paragraph, rejection is withdrawn due to the amendment of the elastomer to a butadiene nitrile rubber in independent claims 1 and 24 and page 3, line 32 of the specification as presented in the amendment filed August 25, 2006.

5. The 35 U.S.C. 112, second paragraph, rejection is rescinded based on the newly claimed reaction of the epoxy component and elastomer, thereby implicitly requiring the presence of epoxy-reactive functional groups on the elastomer.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 10-13, 16-19 and 24-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors had possession of the claimed invention at the time the application was filed.

6. There is no support for the claimed solidification of the adduct in independent claims 1, 24 and 33. There is no description of the final form of the adduct on pages 6-8 discussing its formation.

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7. The melt mixing of the epoxy component and elastomer in claims 31 and 33 is not substantiated. Pages 6-8 describing the preparation of the adduct merely discloses the mixing of the components in a batch process using a mixer such as an extruder (page 6, lines 6-10 and 15-19) without revealing the type of mixture (i.e. whether the components are combined at ambient temperature in a liquid state, melt mixed, or blended in the presence of a solvent.

8. The amendment to page 2, lines 32-33 wherein the "epoxy resin may be a phenolic resin and/or a novalac [sic] type or other type resin" is confusing because the phenolic resin is generic to and embraces the novolac type or other phenolic resin. The phrase "and/or" broadens the "other type resin" to include polymers outside of the phenolic resin which is not enabled. More favorable consideration would be given to the amendment of the phrase to "epoxy resin may be an epoxy resin derived from a phenolic resin such as a novolac resin or another phenolic resin."

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Claims 10-13, 16-19 and 24-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. It cannot be ascertained what maximum level of solvent is embraced by the word "substantial" used to characterize the absence of solvent in the solidification of the adduct in claims 1, 24 and 33 as well as in the melt mixing of the components in claims 31, 32 and 34. The specification on page 13, line 18, describes "the adduct, when made without solvent" without confining the amount of solvent by the adjective "substantial."

10. The scope of the phrase "substantially entirely" utilized in the quantification of the solid bisphenol A epoxy resin content within the solid epoxy component is unclear since it cannot be determined what minimum proportion of solid bisphenol A epoxy resin is encompassed by the term "substantially."

Claims 10-13, 16-18 and 24-26 and 28-34 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over PCT Publication No. WO 95/33785 in view of Lee and Neville's Handbook of Epoxy Resins, page 4-60, Urech et al. Patent No. 4,908,273; Minamisawa et al. Patent No. 4,482,660 ; Golden Patent No. 6,586,089; McKown Patent No. 3,707,583 and Caplicki et al. Patent No. 6,846,559.

Claims 19 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to the claims hereinabove, and further in view of Japanese Patent No. 63-227686.

Lee and Neville's Handbook of Epoxy Resins reveals the epoxide equivalent weight of from 475-575 which converts to a molecular weight of from 950-1150 and a melting point of from 70-80°C for the DER 661 diglycidyl ether of bisphenol A employed in Example 1 of the PCT publication (page 12, lines 22-23).

The rejections are maintained for the reasons of record set forth in the non-Final rejection mailed May 25, 2006. The arguments filed August 25, 2006 have been considered but are unpersuasive.

11. The claims are directed to an epoxy/elastomer adduct wherein "the adduct is solidified and without any substantial solvent (claims 1, 24 and 33)" and "the adduct is formed by melt mixing the epoxy component with the elastomer without any substantial solvent used in the mixing (claims 31, 32 and 34)." None of the cited prior art employs any solvent in the preparation of the adduct.

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12. Furthermore, the limitations are process steps for the formation of the adduct, thereby constituting product-by-process claims.

According to MPEP § 2113, "Product-by-Process Claims":

"[E]ven though the product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process."

In re Thorpe, 777 F.2d. 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

"Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 710 F.2d. 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983)."

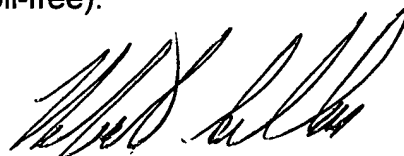
13. Even if, *arguendo*, the adducts of the prior art are interpreted as being solidified, or the components of the adduct are melt mixed, other than without substantial solvent, the adducts of the references are the same or inherently the same as that claimed based on the common reactants of an epoxy resin and a carboxylated butadiene-acrylonitrile rubber. The burden shifts to applicants to provide evidence of an unobvious difference between the prior art and claimed products wherein the adduct is solidified without any substantial solvent, or wherein the components of the adduct are melt mixed without any substantial solvent. There is no showings of record patentably distinguishing the claimed adduct from that of the references.

The amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Sellers whose telephone number is (571) 272-1093. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).



Robert Sellers
Primary Examiner
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